

XP-002250817

AN - 1994-005210 [01]
AP - SU19904825255 19900514
CPY - ASIT
DC - E36 J03
DR - 1423-P 1669-S 1714-S
FS - CPI
IC - C25B1/00
IN - SHULGIN L P; YABLONSKII G S
MC - E31-N05B J03-B
**M3 - [01] C106 C108 C550 C730 C800 C801 C802 C803 C805 C807 M411 M720 M903
M904 M910 N120 N163 Q431 R013; R01423-P**
PA - (ASIT) AS SIBE TUVIN SECT
PN - SU1781324 A1 19921215 DW199401 C25B1/00 002pp
PR - SU19904825255 19900514
XA - C1994-002245
XIC - C25B-001/00
AB - SU1781324 The method involves electrolysis of a suspension of carbon in an aqueous soln. of sulphuric acid, and in order to improve current efficiency carbon-graphite electrodes are used and a 50 Hz a.c. current, at c.d. 0.5-0.8 A/cm².
- **USE/ADVANTAGE** - The method is useful in electrochemical technology, e.g. for obtaining pure carbon monoxide or a mixt. of carbon monoxide with other gases in the industrial prepn. of carbon or carbon-contg. waste materials.
- **IN an example**, a suspension contg. 10 g carbon, fraction up to 2 mm, was electrolysed in 250 ml 8% H₂SO₄, using graphite electrodes and a magnetic stirrer, current strength 3 A, voltage 2.7 V, c.d. 0.8 A/cm², a.c. frequency 50 Hz, electrolysis time 1h, 10 min., temp. 34-45 deg.C. This gave a prod. contg. (wt.%) 69.7 CO, 21.6 CO₂, 4.8 H₂, current efficiency 15.3%. The method avoids the use of rectifiers, and can be used at high c.d. with carbon-graphite electrodes without the danger of fracture, which increases output and current efficiency. The use of graphite electrodes prevents contamination of the prod., and the presence of sulphur-contg. prods. in the gas phase.
Bul.46/15.12.92. (Dwg.0/0)
CN - R01423-P
**IW - CARBON MONO OXIDE PREPARATION ELECTROCHEMICAL TECHNOLOGY ELECTROLYTIC
SUSPENSION CARBON@ AQUEOUS SOLUTION SULPHURIC ACID CARBON@ GRAPHITE
ELECTRODE**
**IKW - CARBON MONO OXIDE PREPARATION ELECTROCHEMICAL TECHNOLOGY ELECTROLYTI
SUSPENSION CARBON@ AQUEOUS SOLUTION SULPHURIC ACID CARBON@ GRAPHITE
ELECTRODE**
INW - SHULGIN L P; YABLONSKII G S
NC - 001
OPD - 1990-05-14
ORD - 1992-12-15
PAW - (ASIT) AS SIBE TUVIN SECT
**TI - Carbon mon:oxide prepn. for electrochemical technology - by
electrolysis of suspension of carbon@ in aq. soln. of sulphuric acid
using carbon@ graphite electrodes**